

soluble polyurethane resin composition containing a carboxyl group or a sulfonic acid group within the molecule and having a glass transition point of 100°C or more as a dry film and (B) a lubricating function-imparting agent in an amount of from 1 to 30% by mass based on said soluble polyurethane resin composition, said substrate being a ferrite-type stainless steel sheet;

wherein the soluble lubricating resin film is removed from the stainless steel sheet after the soluble lubricating surface-treated stainless steel sheet is shaped.--

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--44. (New) A soluble lubricating surface-treated stainless steel sheet with excellent shapability for fuel tanks, comprising a substrate having on both surfaces or one surface thereof a soluble lubricating resin film consisting essentially of (A) a resin composition consisting of only a soluble polyurethane resin composition containing a carboxyl group or a sulfonic acid group within the molecule and having a glass transition point of 100°C or more as a dry film, (B) a lubricating function-imparting agent in an amount of from 1 to 30% by mass based on said soluble polyurethane resin composition and (C) silica particles in an amount of 1 to 30% by mass based on said soluble polyurethane resin composition, said substrate being a ferrite-type stainless steel sheet;

wherein the soluble lubricating resin film is removed from the stainless steel sheet after the soluble lubricating surface-treated stainless steel sheet is shaped.--

--45. (New) The soluble lubricating surface-treated stainless steel sheet for fuel tanks as claimed in claim 43, wherein an amount of an acid group contained in (A) the soluble polyurethane resin composition for forming a soluble lubricating resin film has an acid value from 30 to 180.--

--46. (New) The soluble lubricating surface-treated stainless steel sheet for fuel tanks as claimed in claim 44, wherein an amount of an acid group contained in (A) the soluble polyurethane resin composition for forming a soluble lubricating resin film has an acid value from 30 to 180.--

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--47. (New) The soluble lubricating surface-treated stainless steel sheet for fuel tanks as claimed in claim 43, wherein a neutralizer for an acid group contained in (A) the soluble polyurethane resin composition for forming a soluble lubricating resin film is sodium hydroxide or potassium hydroxide.--

--48. (New) The soluble lubricating surface-treated stainless steel sheet for fuel tanks as claimed in claim 44, wherein a neutralizer for an acid group contained in (A) the soluble polyurethane resin composition for forming a soluble lubricating resin film is sodium hydroxide or potassium hydroxide.--

--49. (New) The soluble lubricating surface-treated stainless steel sheet for fuel tanks as claimed in claim 43, wherein a component constituting (A) the soluble polyurethane resin composition for forming a soluble lubricating resin film is polyester polyol.--

--50. (New) The soluble lubricating surface-treated stainless steel sheet for fuel tanks as claimed in claim 44, wherein a component constituting (A) the soluble polyurethane resin composition for forming a soluble lubricating resin film is polyester polyol.--

--51. (New) The soluble lubricating surface-treated stainless steel sheet for fuel tanks as claimed in claim 43, wherein a component constituting (A) the soluble polyurethane resin composition for forming a soluble lubricating resin film is polyether polyol.--

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--52. (New) The soluble lubricating surface-treated stainless steel sheet for fuel tanks as claimed in claim 44, wherein a component constituting (A) the soluble polyurethane resin composition for forming a soluble lubricating resin film is polyether polyol.--

--53. (New) The soluble lubricating surface-treated stainless steel sheet for fuel tanks as claimed in claim 43, wherein the lubricating function-imparting agent (B) comprises one or more members selected from the group consisting of polyolefin-based wax, fluorine-containing wax, paraffin-based wax and stearic acid-based wax.--

--54. (New) The soluble lubricating surface-treated stainless steel sheet for fuel tanks as claimed in claim 44, wherein the lubricating function-imparting agent (B) comprises one or more members selected from the group consisting of polyolefin-based wax, fluorine-containing wax, paraffin-based wax and stearic acid-based wax.--

--55. (New) The soluble lubricating surface-treated stainless steel sheet for fuel tanks as claimed in claim 43, wherein the substrate is a ferrite-type stainless steel sheet comprising, in % by mass:

C : 0.5% or less,
Si : 3% or less,
Mn : 5% or less,
P : 0.1% or less,
S : 0.05% or less,
Ni : 5% or less,
Cr : 9 to 30%,
N : 0.2% or less, and
Al : 0.001 to 5%

with the balance being Fe and inevitable impurities.--

--56. (New) The soluble lubricating surface-treated stainless steel sheet for fuel tanks as claimed in claim 44, wherein the substrate is a ferrite-type stainless steel sheet comprising, in % by mass:

C : 0.5% or less,
Si : 3% or less,
Mn : 5% or less,
P : 0.1% or less,
S : 0.05% or less,
Ni : 5% or less,
Cr : 9 to 30%,
N : 0.2% or less, and
Al : 0.001 to 5%

with the balance being Fe and inevitable impurities.--

--57. (New) The soluble lubricating surface-treated stainless steel sheet for fuel tanks as claimed in claim 55, wherein the substrate stainless steel sheet further comprises one or more of, in % by mass:

Mo : 0.01 to 8%,
Cu : 0.01 to 5%,
Ti : 0.01 to 1%,
Nb : 0.01 to 1%,
V : 0.01 to 1%,
Mg : 0.001 to 0.1%,
Ca : 0.001 to 0.1%,
B : 0.0005 to 0.05%, and
W : 0.01 to 5%.--

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--58. (New) The soluble lubricating surface-treated stainless steel sheet for fuel tanks as claimed in claim 56, wherein the substrate stainless steel sheet further comprises one or more of, in % by mass:

Mo : 0.01 to 8%,
Cu : 0.01 to 5%,
Ti : 0.01 to 1%,
Nb : 0.01 to 1%,
V : 0.01 to 1%,
Mg : 0.001 to 0.1%,
Ca : 0.001 to 0.1%,
B : 0.0005 to 0.05%, and
W : 0.01 to 5%.--